

CLAIMS

WHAT IS CLAIMED IS:

1. A method for performing a fluid process within a machine having a fluid system including at least two reservoirs of different types of fluids, said method comprising the steps of:

identifying a first reservoir for use in performing a fluid process;

a. adjusting a configuration of a valve system operatively coupled to said fluid system to permit a fluid evacuation process to be performed for said reservoir;

b. subsequently performing said fluid evacuation process for said reservoir;

c. subsequently adjusting said configuration of said valve system to permit a fluid refill process to be performed for said reservoir;

d. subsequently performing said fluid refill process for said reservoir; and

subsequently identifying an additional reservoir and performing at least one of said steps a, b, c and d for said additional reservoir, wherein said first reservoir includes a fluid of a type which is different from a type of a fluid of said additional reservoir.

2. The method of Claim 1, further comprising performing said fluid evacuation process by using at least one multi-position valve included within said valve system of said fluid system.

3. The method of Claim 2, wherein said multi-position valve includes a junction block assembly.

4. The method of Claim 1, further comprising performing said fluid refill process by using at least one multi-position valve included within said valve system of said fluid system.

5. The method of Claim 4, wherein said multi-position valve includes a junction block assembly.

6. The method of Claim 1, further comprising employing at least one evacuation bracket structured for promoting fluid communication with said fluid system for performing at least one of said fluid evacuation and said fluid refill processes.

7. The method of Claim 1, further comprising employing at least one quick disconnect structured for promoting fluid communication with said fluid system for performing at least one of said fluid evacuation and said fluid refill processes.

8. The method of Claim 1, wherein said step of performing said fluid refill process for said reservoir further includes accessing at least one fluid replacement source.

9. The method of Claim 1, wherein said step of performing said fluid evacuation process for said reservoir further includes accessing at least one waste-receiving receptacle.

10. The method of Claim 1, wherein said fluid system further includes at least one supplemental filter system.

11. The method of Claim 1, further comprising facilitating at least one of said fluid evacuation and said fluid refill processes by using a pump.

12. The method of Claim 11, wherein said pump is installed locally with respect to said fluid system of said machine.

13. The method of Claim 1, further comprising operatively associating a control module with said fluid system.

14. The method of Claim 13, further comprising using said control module for said adjusting said configuration of said valve system.

15. The method of Claim 13, wherein said control module includes at least one control selected from the group consisting of a machine control, a pump control, a multi-position valve control, and an evacuation bracket control.

16. The method of Claim 13, further comprising configuring said control module for collecting cycle time data associated with at least one of said fluid evacuation and said fluid refill processes.

17. The method of Claim 16, wherein said collecting cycle time data includes collecting at least a start time associated with at least one of said fluid processes for at least one of said reservoirs.

18. The method of Claim 13, further comprising configuring said control module for performing at least one fluid evacuation process in sequence with at least one fluid refill process.

19. The method of Claim 13, further comprising configuring said control module for receiving data into at least one data storage medium of said control module.

20. The method of Claim 13, wherein said control module includes at least one sensor input for receiving data communicated from at least one sensor operatively associated with said fluid system.

21. The method of Claim 13, further comprising operatively associating at least one data device with said control module.

22. The method of Claim 1, further comprising operatively associating an internal data module with said machine.

23. The method of Claim 1, further comprising purging a filter operatively associated with said first reservoir prior to performing said evacuation process for said first reservoir.

24. The method of Claim 1, further comprising purging a filter operatively associated with said additional reservoir prior to performing said evacuation process for said additional reservoir.

25. The method of Claim 1, wherein said step of performing said fluid refill process for said reservoir further includes pre-filter delivery of a fluid for said reservoir in association with performing said fluid refill process.

26. A method for performing a fluid process within a machine having a fluid system including at least two reservoirs of different types of fluids, said method comprising the steps of:

identifying a first reservoir for use in performing a fluid process;

a. first, adjusting a configuration of a valve system operatively coupled to said fluid system to permit a fluid evacuation process to be performed for said reservoir;

b. second, performing said fluid evacuation process for said reservoir;

c. third, adjusting said configuration of said valve system to permit a fluid refill process to be performed for said reservoir;

d. fourth, performing said fluid refill process for said reservoir;  
and

identifying an additional reservoir and performing at least one of said steps a, b, c and d for said additional reservoir, wherein said first reservoir includes a fluid of a type which is different from a type of a fluid of said additional reservoir.

27. A method for performing a fluid process within a machine having a fluid system including at least two reservoirs of different types of fluids, said method comprising the steps of:

- identifying a first reservoir for use in performing a fluid process;
  - a. first, adjusting a configuration of a valve system operatively coupled to said fluid system to permit a fluid evacuation process to be performed for said reservoir;
  - b. second, performing said fluid evacuation process for said reservoir;
  - c. third, adjusting said configuration of said valve system to permit a fluid refill process to be performed for said reservoir;
  - d. fourth, performing said fluid refill process for said reservoir;
- and

identifying an additional reservoir and performing said steps a, b, c and d for said additional reservoir, wherein said first reservoir includes a fluid of a type which is different from a type of a fluid of said additional reservoir.

28. A system for performing a fluid process within a machine having a fluid system including at least two reservoirs of different types of fluids, said system comprising:

a valve system operatively coupled to said fluid system, said valve system configured to permit selective access to a first reservoir and at least one additional reservoir operatively associated with said fluid system for performing at least one fluid evacuation process for a selected one of said first reservoir and said additional reservoir, wherein a fluid included within said first reservoir is of a type different from a type of a fluid included within said additional reservoir; and,

means for adjusting said configuration of said valve system to permit selective fluid communication between said selected one of said first reservoir and said additional reservoir and at least one of a waste-receiving receptacle and a fluid replacement source, wherein said fluid communication enables at least one fluid refill process for said selected one of said first reservoir and said additional reservoir.

29. The system of Claim 28, further comprising at least one multi-position valve included within said valve system of said fluid system.

30. The system of Claim 29, wherein said multi-position valve includes a junction block assembly.

31. The system of Claim 28, further comprising at least one evacuation bracket structured for fluid communication with said fluid system.

32. The system of Claim 28, further comprising at least one quick disconnect structured for fluid communication with said fluid system.

33. The system of Claim 28, further including at least one supplemental filter system operatively associated with said fluid system.

34. The system of Claim 28, further comprising at least one pump for facilitating at least one of said fluid evacuation and said fluid refill processes.

35. The system of Claim 34, wherein said pump is installed locally with respect to said fluid system of said machine.

36. The system of Claim 28, further comprising a control module operatively associated with said fluid system.

37. The system of Claim 28, wherein said adjusting means includes a control module.

38. The system of Claim 36, wherein said control module includes at least one control selected from the group consisting of a machine control, a pump control, a multi-position valve control, and an evacuation bracket control.

39. The system of Claim 36, wherein said control module is configured for collecting cycle time data associated with at least one of said fluid evacuation and said fluid refill processes.

40. The system of Claim 36, wherein said control module is configured for performing at least one said fluid evacuation process in sequence with at least one said fluid refill process.

41. The system of Claim 36, further comprising at least one data storage medium operatively associated with said control module.

42. The system of Claim 36, further comprising at least one data device operatively associated with said control module.

43. The system of Claim 28, further comprising at least one sensor operatively associated with at least one of said fluid system and said valve system.

44. The system of Claim 28, further comprising an internal data module operatively associated with said machine.

45. A system for performing a fluid process within a machine having a fluid system including at least two reservoirs of different types of fluids, said system comprising:

valve means operatively coupled to said fluid system, said valve means configured to permit selective access to a first reservoir means and at least one additional reservoir means operatively associated with said fluid system for performing at least one fluid evacuation process for said selected one of said first reservoir means and said additional reservoir means, wherein a fluid included within said first reservoir

means is of a type different from a type of a fluid included within said additional reservoir means; and,

means for adjusting said configuration of said valve means to permit selective fluid communication between said selected one of said first reservoir means and said additional reservoir means and at least one of a waste-receiving means and a fluid replacement means, wherein said fluid communication enables at least one fluid refill process for said selected one of said first reservoir means and said additional reservoir means.

46. A computer-readable medium including instructions for performing a method for performing a fluid process within a machine having a fluid system including at least two reservoirs of different types of fluids, said medium comprising:

instructions for identifying a first reservoir for use in performing a fluid process;

a. instructions for adjusting a configuration of a valve system operatively coupled to said fluid system to permit a fluid evacuation process to be performed for said reservoir;

b. instructions for subsequently performing said fluid evacuation process for said reservoir;

c. instructions for subsequently adjusting said configuration of said valve system to permit a fluid refill process to be performed for said reservoir;

d. instructions for subsequently performing said fluid refill process for said reservoir;

instructions for subsequently identifying an additional reservoir for use in performing a fluid process, wherein a fluid included within said additional reservoir is of a type different from a type of a fluid included within said additional reservoir; and

instructions for executing at least one of said instructions a, b, c and d for said additional reservoir.

47. In a fluid system of a machine, a junction block assembly apparatus, said apparatus comprising:

a body having at least one port formed therein; and,

said junction block assembly being structured for receiving at least one fluid flow in association with performing at least one of a fluid evacuation process and a fluid refill process in operative association with said fluid system of said machine.

48. The apparatus of Claim 47, further comprising at least one screen installed within at least one of said ports of said junction block assembly.

49. The apparatus of Claim 48, wherein said screen is included within an integral assembly with at least one adapter, said integral assembly positioned within at least one of said ports of said junction block assembly.

50. The apparatus of Claim 49, further comprising said integral assembly being removably insertable within said port of said junction block assembly for permitting inspection of at least one of said integral assembly and said junction block assembly.

51. The apparatus of Claim 47, further comprising at least one adapter installed within at least one of said ports of said junction block assembly.

52. The apparatus of Claim 51, wherein said adapter further includes at least one plug.

53. The apparatus of Claim 51, further comprising said adapter being removably insertable within said port of said junction block assembly.

54. The apparatus of Claim 51, wherein said adapter further includes at least one magnetic plug.

55. The apparatus of Claim 54, further comprising said magnetic plug being removably insertable within said port of said junction block assembly.

56. The apparatus of Claim 47, further comprising at least one additional port formed in said body.

57. The apparatus of Claim 47, wherein one of said plurality of ports of said junction block assembly includes a common evacuation port for said fluid system of said machine.

58. The apparatus of Claim 57, further comprising a filter screen installed within said common evacuation port.

59. The apparatus of Claim 47, wherein one of said plurality of ports of said junction block assembly includes a common refill port for said fluid system of said machine.

60. The apparatus of Claim 59, further comprising a filter screen installed within said common refill port.

61. A fluid system of a machine, said system comprising:  
at least one junction block assembly including a body having at least one port formed therein, said junction block assembly further being structured for receiving at least one fluid flow in association with performing at least one of a fluid evacuation process and a fluid refill process in operative association with said fluid system of said machine;  
at least one pump in fluid communication with at least one of said junction block assemblies; and,  
a screen positioned within said fluid system in fluid communication with a suction side of said pump.